VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

The claims have been amended as follows.

1. (Amended) A method [for] of gene analysis [comprising the step of] by detecting hybridization between a probe nucleic acid and a sample nucleic acid [containing] comprising a target sequence [that has a sequence] complimentary to that of the probe nucleic acid, wherein [either the probe nucleic acid or the sample nucleic acid is immobilized on a substrate,] at least one of the probe nucleic acid and the sample nucleic acid is DNA, [and the] said method comprising:

immobilizing either the probe nucleic acid or the sample nucleic acid on a substrate,

adding the other non-immobilized probe nucleic acid or sample nucleic acid to the immobilized probe nucleic acid or sample nucleic acid on the substrate,

promoting hybridization [is caused] in the presence of a double-stranded DNA-binding protein having a function to stabilize a complementary double-stranded DNA, and

detecting the hybridization.

7. (Amended) The method according to claim 1, wherein the double-stranded DNA-binding protein is a Sso7d protein derived from *Sulfolobus solfataricus.*

8. (Amended) The method according to claim 1, wherein the double-stranded DNA-binding protein [is a protein having] has a homology of 75% or more [to the protein represented by] with the amino acid sequence of SED ID NO: 9.

10. (Amended) The method according to claim [1] 9, wherein the amount of the sample nucleic acid [containing] comprising the target sequence is analyzed based on the intensity of a hybridization signal obtained from the hybridization of the labeled sample nucleic acid and the probe nucleic acid.

11. (Amended) The method according to claim [1] 9, wherein [detecting] the detection of the hybridization is performed by using a plurality of probe nucleic acids and [then] detecting the polymorphism in the target sequence [is detected based on the result of detection of] by comparing the intensity of each hybridization signal obtained from the hybridization of the labeled sample nucleic acid and the plurality of probe nucleic acids.

12. (Amended) The method according to claim [1] 9, wherein [detecting] the detection of the hybridization is performed by using a plurality of probe nucleic acids and [then] detecting nucleotide sequence of the sample nucleic acid [is determined based on the result of detection of] by comparing the intensity of each hybridization signal obtained from the hybridization of the labeled sample nucleic acid and the plurality of probe nucleic acids.

13. (Amended) A test kit for [detection of] detecting hybridization between a probe nucleic acid and a sample nucleic acid [containing] comprising a target sequence [that has a sequence] complementary to that of the probe nucleic acid, which comprises at least a double-stranded DNA-binding protein having a function to stabilize a complementary double-stranded DNA.

aforementioned method for gene analysis wherein detecting hybridization is performed by using a plurality of probe nucleic acids and then nucleotide sequence of the sample nucleic acid is determined based on the result of detection of hybridization.

The present invention further provides a test kit for detection of hybridization between a probe nucleic acid and a sample nucleic acid containing a target sequence that has a sequence complementary to that of the probe nucleic acid, which comprises at least a double-stranded DNA-binding protein.

~~DETAILED~~ DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention will be explained in detail hereafter.

In the present invention, the term "double-~~staranded~~ stranded DNA-binding protein" refers to a protein which binds to chromosome of eucaryote or that of prokaryote strongly and concerns retention of higher-order structure of chromosome. That is, it comprises a protein having function to stabilize a complementary double-~~staranded~~ stranded DNA.

In the present invention, the term "sample nucleic acid" refers to a nucleic acid which is a subject of analysis such as nucleotide sequence determination or expression analysis, and it may be either DNA or RNA.

In the present invention, the term "probe nucleic